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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,980	12/30/2005	Hiroshi Yoshii	283399US0PCT	3529

22850 7590 04/12/2010  
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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SULLIVAN, DANIELLE D

ART UNIT	PAPER NUMBER
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1616

NOTIFICATION DATE	DELIVERY MODE
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04/12/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/562,980	<b>Applicant(s)</b> YOSHII ET AL.	
	<b>Examiner</b> DANIELLE SULLIVAN	<b>Art Unit</b> 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) 13-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 23 and 25-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 1-23 and 25-27 are pending. Claims 13-22 are withdrawn for being directed to a non-elected invention. Claims **1-12, 23 and 25-27** are currently under examination.

### ***Withdrawn rejections***

Applicants amendments and arguments filed 12/14/2009 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below are herein withdrawn.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **1-12, 23, 25 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda (US 5,830,827) in view of Anderson et al. (Alkoxylated Glyceride Emulsifiers in Agricultural Applications, 2001).

### **Applicant's Invention**

Applicants claim a herbicidal composition comprising a herbicidal sulfonylurea compound or its salt, and an alkoxylated glyceride, wherein when said herbicidal sulfonylurea is nicosulfuron, said herbicidal composition does not contain

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polyoxyethylene hydrogenated castor oil. Claim 23 specifies the sulfonylurea is not nicosulfuron. Claims 2-4 and 27 further limit the alkoxyated glyceride to being selected from polyoxyethylene hydrogenated castor oil. Claims 5, 6 and 25 limit the sulfonylurea to being selected from flazasulfuron, foramsulfuron, nicosulfuron, rimsulfuron, trifloxysulfuron and tritosulfuron. Claim 7 specifies the ratio of sulfonylurea to alkoxyated glyceride is from 16:1 to 1:6000. Claim 8 specifies the composition comprises 0.1-95 parts by weight of sulfonylurea, 0.1-94.9 parts by weight of the alkoxyated glyceride, and the rest being additives. Claim 9 further comprises one or more other herbicide compounds. Claims 10 and 12 further add a coadjuvant selected from chelating agent, fertilizer comprising nitrogen, or a combination thereof. Claim 11 further comprises one of more other herbicides and a coadjuvant.

**Determination of the scope and the content of the prior art**

**(MPEP 2141.01)**

Maeda teaches a granular herbicidal composition comprising flazasulfuron, together with a chemical stabilizer and a carrier (coadjuvants) (abstract). If necessary the composition may further include various formulates for contributing to the improvement in the physical properties of the granular composition (column 2, lines 28-35). These formulates include nonionic surfactants such as polyoxyethylene glycerin fatty acid ester, fatty acid polyglyceride and polyoxyethylene hydrogenated castor oil (column 2, lines 51-60). The composition may contain other herbicides alone or as a mixture of two or more (column 3, line 23 through column 4, line 63). Based on 100 parts by weight the amount of flazasulfuron is from 0.02-1 parts by weight; the chemical

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stabilizer is 0.1-10; the carrier is from 50-99.88; and the amount of surfactants is from 0.1 to 10 parts by weight (column 5, lines 1-19).

### **Ascertainment of the difference between the prior art and the claims**

#### **(MPEP 2141.02)**

Maeda does not disclose a specific example comprising a surfactant selected from polyoxyethylene glycerin fatty acid ester, fatty acid polyglyceride and polyoxyethylene hydrogenated castor oil. It is for this reason that Anderson et al. is joined.

Anderson et al. teach ethoxylated glycerides have long been known as effective and safe nonionic emulsifiers in agriculture. They are favorable for human and ecotoxicological profiles and are preferred whenever sensitive environments must be protected. United States Environmental Protection Agency regulations restrict the choices available to agricultural formulators to a single triglyceride, castor oil, on growing crop and raw agricultural commodities (abstract).

### **Finding of prima facie obviousness**

#### **Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Maeda and Anderson et al. to further include a nonionic surfactant selected from polyoxyethylene hydrogenated castor oil. One would have been motivated to include these surfactants because Maeda teaches that these surfactants contribute to the improvement of the physical properties of the formulation and Anderson et al. specifies selected ethoxylated glyceride because they are favorable

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for human and ecotoxicological profiles and the United States Environmental Protection Agency regulations restrict to the selection of castor oil on growing crop and raw agricultural commodities. Hence, one of ordinary skill would have been motivated to select polyoxyethylene hydrogenated castor oil in order to comply with federal regulations and safety.

### ***Response to Arguments***

Applicants arguments filed 12/14/2009 have been fully considered but they are not persuasive.

Applicants argue that neither Maeda nor Anderson suggest or provide a reasonable expectation of success for the superior properties obtained by the combination of a sulfonylurea and alkoxylated glyceride and there is no motivation to select the particular combination. The Examiner is not persuaded by this argument. In view of *KSR International Co. v. Teleflex Inc.*, 550 U.S, 82 USPQ2d at 1396, it is would have been obvious to choose from a finite number of identified, predictable solutions, with a reasonable expectation of success. Maeda et al. teach selected herbicides selected from the sulfonylureas and surfactants selected from polyoxyethylene hydrogenated castor oil. Hence, selecting the particular combination would have been expected to result in a reasonable expectation of success.

Applicants argue that the specification shows the present compounds have superior herbicidal properties in comparison to Citowett and Frigate herbicide surfactants disclosed in Maeda. The Examiner is not convinced by this argument because Maeda et al. teaches polyoxyethylene glyceryl fatty acids. Therefore, the data must be compared with the closest prior art compounds in the form of a side by side comparison in order to distinguish the superior results. Maeda discloses formulations where the surfactant is selected from sodium dioctylsulfosuccinate (Examples 1-11) and Examples 12-16 uses sodium naphthalenesulfonate

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(Examples 12-16). Hence, the closest prior art would be the surfactants sodium dioctylsulfosuccinate and sodium naphthalenesulfonate, not Citowett (alkylaryl polyglycol) and Frigate (ethoxylated tallow amine).

Claim **26** is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda

(US 5,830,827).

### **Applicant's Invention**

Applicant claims an herbicidal composition comprising an herbicidal sulfonylurea compound or its salt, and an alkoxylated glyceride, wherein when said herbicidal sulfonylurea is nicosulfuron, said herbicidal composition does not contain polyoxyethylene hydrogenated castor oil. Claim 26 specifies the alkoxylated glyceride to being selected from polyoxyethylene glyceryl triisostearate, polyoxyethylene glyceryl monoisostearate, polyoxyethylene 1,1,1-trimethylolpropane triisostearate, polyoxyethylene hydrogenated castor oil pyroglutamic acid isostearate and polyoxyethylene glycerly pyroglutamic acid isostearate.

### **Determination of the scope and the content of the prior art**

#### **(MPEP 2141.01)**

Maeda teaches a granular herbicidal composition comprising flazasulfuron, together with a chemical stabilizer and a carrier (coadjuvants) (abstract). If necessary the composition may further include various formulates for contributing to the improvement in the physical properties of the granular composition (column 2, lines 28-35). These formulates include nonionic surfactants such as polyoxyethylene glycerin fatty acid esters, fatty acid polyglyceride and polyoxyethylene hydrogenated castor oil (column 2, lines 51-60). The composition may contain other herbicides alone or as a mixture of two or more (column 3, line 23 through column 4, line 63). Based on 100

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parts by weight the amount of flazasulfuron is from 0.02-1 parts by weight; the chemical stabilizer is 0.1-10; the carrier is from 50-99.88; and the amount of surfactants is from 0.1 to 10 parts by weight (column 5, lines 1-19).

### **Ascertainment of the difference between the prior art and the claims**

#### **(MPEP 2141.02)**

Maeda does not disclose a specific example comprising a surfactant selected from polyoxyethylene glyceryl triisostearate, polyoxyethylene glyceryl monoisostearate, polyoxyethylene 1,1,1-trimethylolpropane triisostearate, polyoxyethylene hydrogenated castor oil pyroglutamic acid isostearate and polyoxyethylene glycerly pyroglutamic acid isostearate. However, Maeda teaches nonionic surfactants selected from polyoxyethylene glycerin fatty acid esters (column 2, lines 51-60). The genus, polyoxyethylene glycerin fatty acid esters encompass the species of claimed surfactants selected from polyoxyethylene glyceryl triisostearate, polyoxyethylene glyceryl monoisostearate, polyoxyethylene 1,1,1-trimethylolpropane triisostearate, polyoxyethylene hydrogenated castor oil pyroglutamic acid isostearate and polyoxyethylene glycerly pyroglutamic acid isostearate. The claimed surfactants are inherent to the teaching of the polyoxyethylene glycerin fatty acid esters because they are taught to be surfactants, thus, the polyoxyethylene glycerin fatty acid esters would inherently possess the same characteristics since they are taught to act as nonionic surfactants.

### **Finding of prima facie obviousness**



### **Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Maeda and Anderson et al. to further include a nonionic surfactant selected from polyoxyethylene glyceryl triisostearate, polyoxyethylene glyceryl monoisostearate, polyoxyethylene 1,1,1-trimethylolpropane triisostearate, polyoxyethylene hydrogenated castor oil pyroglutamic acid isostearate and polyoxyethylene glycerly pyroglutamic acid isostearate. One would have been motivated to include these surfactants because Maeda teaches that polyoxyethylene glycerin fatty acid esters are utilized as nonionic surfactants. The surfactants of claim 26 include polyoxyethylene glyceryl triisostearate, polyoxyethylene glyceryl monoisostearate, polyoxyethylene 1,1,1-trimethylolpropane triisostearate, polyoxyethylene hydrogenated castor oil pyroglutamic acid isostearate and polyoxyethylene glycerly pyroglutamic acid isostearate which are polyoxyethylene glyceryl fatty acids. Therefore, the surfactants of claim 26 would inherently possess the same characteristics since they are polyoxyethylene glyceryl fatty acids.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIELLE SULLIVAN whose telephone number is (571)270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Danielle Sullivan  
Patent Examiner  
Art Unit 1616

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Supervisory Patent Examiner, Art Unit 1616